# Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_

## 201 Chapter 4: Proofs Using CPCTC (4.6)

1. Given: E is the midpoint of AB and CD

Prove: ∠D ≅ ∠C Statements Reasons



1. Given: CD bisects ∠ACB; ∠3 ≅ ∠4 Statements Reasons

Prove: ∠A ≅ ∠B

D

1. Given: AB ≅ CD; AB || CD

Prove: AD ≅ CB Statements Reasons



1. Given: XZ ≅ YZ (Hint: separate the triangles) Statements Reasons

ZT ≅ ZS

Prove: ∠YSZ ≅ ∠XTZ



1. Given: AC ≅ BC; ∠1 ≅ ∠2 Statements Reasons

Prove: DA ≅ DB

D

1. Given: MO ≅ PR; RM ≅ OP Statements Reasons

Prove: ∠1 ≅ ∠2



1. Given: RP || OM; RM || PO Statements Reasons

Prove: RM ≅ OP





8. Given: m∠1 = m∠3; LG ≅ LH; ∠G ≅ ∠LHJ

Prove: ΔGLI ≅ Δ HLK

Statements Reasons



9. Given: RU ⊥UM; UT⊥US; UT ≅ UM; UR ≅ US

Prove: TR ≅ MS

Statements Reasons

1. Given

2.(The Complement Theorem) If the non-adjacent sides of two acute ∠s are ⊥, then the ∠s are complementary.

3. (same as #2)

4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. ~

2.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. ∠1 ≅ ∠3

5. ΔUTR ≅ ΔUMS

6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. Given: m∠4 = m∠6; MN ≅ NO; QS = PR; SN = RN

 Prove: ΔMNP ≅ Δ ONQ

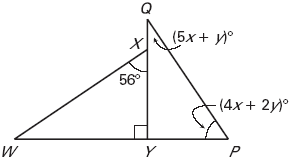
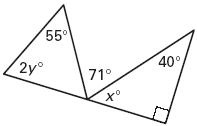
Statements Reasons

11. Given: BC = DE; ∠1 ≅ ∠4; AD ≅ FC

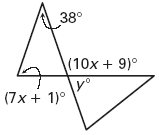
Prove: AB ≅ FE

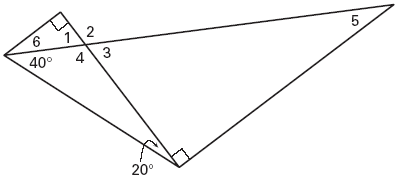


Statements Reasons

**Solve for x and/or y**.

12. 13. 14.



15. Find all of the measurements of the numbered angles.

m∠1 = \_\_\_\_\_\_\_\_

m∠2 = \_\_\_\_\_\_\_\_

m∠3 = \_\_\_\_\_\_\_\_

m∠4 = \_\_\_\_\_\_\_\_

m∠5 = \_\_\_\_\_\_\_\_

m∠6 = \_\_\_\_\_\_\_\_

16. Find all of the values of x that make the t wo triangles congruent.